AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter.

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (currently amended) In a graphical user interface of a logic analyzer, a system for enabling a user to position the logic analyzer's sample position within a data valid window by enabling direct graphical manipulation of sample positions relative to an actual data valid window on a device under test, wherein: (1) the data valid window is a stable and transitioning regions data display, (2) direct graphical manipulation of sample positions is made in 100 ps increments and (3)~~The system of claim 1, wherein~~ the data valid window is automatically discovered on all channels.

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (cancelled)

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (currently amended) The system of claim ~~14~~6, wherein:

the data valid window defines the stable data valid regions and transitioning regions for each signal relative to a clock transition;

the data valid window is displayed as a bus composite view;

a sample position marker indicating the range of sample positions for the represented bus is displayed;

the graphical user interface further displays a plurality of information and control items;

the plurality of information and control items comprises, a bus/signal label, a sample position time scale, a plurality of information icons, a plurality of time stamp icons, a graphical representation of a suggested sample position, a text display of the selected sample position, a plurality of sample position scroll buttons, and a legend;

graphical selection of a stable region or a transitioning region causes a popup menu to be displayed; and

the pop-up menu comprises a list of graphically selectable options comprising ~~said graphically selectable options comprise:~~

a) expand;

b) collapse;

c) view as bus composite;

d) view as stack of channels;

e) set sampling position to suggested;

f) show message; and

g) show time stamp.

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (currently amended) The system of claim ~~21~~6, wherein:

the data valid window defines the stable data valid regions and transitioning regions for each signal relative to a clock transition;

the data valid window is displayed as an individual channels view with each channel displayed individually;

the graphical user interface further displays a plurality of information and control items;

said plurality of information and control items comprising a bus/signal label, a sample position time scale, a plurality of information icons, a plurality of time stamp icons, a graphical representation of a suggested sample position, a plurality of text display of the selected sample position, a plurality of sample

position scroll buttons associated with said plurality of text displays, and a legend;

said plurality of information icons are graphically selectable;

selection of one of said plurality of information icons causes a text message to be displayed on said graphical user interface; and

said text message is displayed in a message fly-out format.

23. (cancelled)

24. (cancelled)

25. (cancelled)

26. (currently amended) The system of claim ~~25~~6, wherein:

the data valid window defines the stable data valid regions and transitioning regions for each signal relative to a clock transition;

the data valid window is displayed as an individual channels view with each channel displayed individually;

the graphical user interface further displays a plurality of information and control items;

said plurality of information and control items comprising a bus/signal label, a sample position time scale, a plurality of information icons, a plurality of time stamp icons, a graphical representation of a suggested sample position, a

plurality of text display of the selected sample position, a plurality of sample position scroll buttons associated with said plurality of text displays, and a legend;

said plurality of time stamp icons are graphically selectable;

selection of one of said plurality of time stamp icons causes a text message to be displayed on said graphical user interface;

said text message contains relative measurement time information; and

_____said text message is displayed in a message fly-out format.

27. (cancelled)

28. (cancelled)

29. (cancelled)

30. (cancelled)

31. (cancelled)

32. (cancelled)

33. (cancelled)

34. (cancelled)

35. (cancelled)

36. The system of claim 35, wherein graphical selection of a stable region or a transitioning region causes a text message to be displayed on said graphical user interface.

37. The system of claim 36, wherein the pop-menu comprises a list of graphically selectable options.

38. (currently amended) In a graphical user interface of a signal measurement system, a system for enabling a user to position the signal measurement system's sample position within a data valid window by enabling direct graphical positioning of sample positions relative to an actual data valid window on a device under test, wherein;

a) the signal measurement system is a logic analyzer;

b) the data valid window is a stable and transitioning regions data display;

c) the data valid window is automatically discovered on all channels;

d) the data valid window is displayed as an individual channels view with each channel displayed individually;

e) the graphical user interface further displays a plurality of information and control items;

f) said plurality of time stamp icons are graphically selectable;

g) two distinct sampling positions indicators are displayed in each of said channels;

h) a first of said two distinct sampling positions indicators represents a suggested sampling position and a second of said two distinct sampling positions represents a selected sampling position;

i) said first indicator indicates a sampling position identified by the signal measurement system as the optimal sampling position and said second indicator is graphically selectable and indicates a sampling position selected by the user;

j selection of said second indicator causes said selected sampling position to change;

k) graphical selection of a stable region or a transitioning region causes a text message to be displayed on said graphical user interface; and

l) the pop-up menu comprises a list of graphically selectable options, said options comprising expand, collapse, view as bus composite, view as stack of channels, set sampling position to suggested; show message and show time stamp.

~~The system of claim 37, wherein said graphically selectable options comprise:~~

~~a) expand;~~

~~b) collapse;~~

~~c) view as bus composite;~~

~~d) view as stack of channels;~~

~~e) set sampling position to suggested; and~~

~~f) show message; and~~

~~g) show time stamp.~~

39. (cancelled)

40. (cancelled)

41. (cancelled)

42. (cancelled)

43. (cancelled)

44. (cancelled)

45. (currently amended) In a graphical user interface of a signal measurement system, a method for enabling a user to position the signal measurement system's sample position within a data valid window by enabling direct graphical positioning of sample positions relative to an actual data valid window on a device under test, comprising the steps of:

a) automatically discovering the data valid windows on all channels;

b) displaying the data valid window as an individual channels view with each channel displayed individually;

c) displaying stable and transitioning regions in said data valid window;

d) displaying two distinct sampling positions indicators in each of said channels, wherein a first of said two distinct sampling positions indicators represents a suggested sampling position and a second of said two distinct sampling positions indicators represents a selected sampling position;

e) modifying the sampling position of said signal measurement system in response to graphical movement of said second indicator; and

f) displaying a plurality of graphically selectable information and control items, said plurality of information and control items comprising a bus/signal label, a sample position time scale, a plurality of information icons, a plurality of time stamp icons, a graphical representation of a suggested sample position, a text display of the selected sample position, a plurality of sample position scroll buttons, and a legend;

~~The method of claim 44,~~ wherein said text message is displayed in a message fly-out format.

46. (cancelled)

47. (currently amended) The method of claim 46, wherein graphically selecting one of said plurality of time stamp icons causes a text message to be displayed on said graphical user interface and said time stamp icon text message is displayed in a message fly-out format.

48. (cancelled)

49. (currently amended) The method of claim 458, further comprising the step of

graphically selecting one of said stable regions or one of said transitioning regions, causing a pop-up menu to be displayed on said graphical user interface and wherein said pop-up menu comprises a list of options including at least:

1) expand;

2) collapse;

3) view as bus composite;

4) view as stack of channels;

5) set sampling position to suggested; and

6) show message; and

7) show time stamp.

50. (original claim) The method of claim 49, further comprising the step of graphically selecting the "collapse" option from said pop-up menu causing said individual channels view to collapse into a composite bus view.

51. (original claim) The method of claim 50, wherein said composite view defines the absolute largest transitioning region and the absolute smallest stable region of all signals of the represented bus.